

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application No. : 10/553,519 Confirmation No. : 1658
Applicants : Georg DUDA et al.
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Title : **Method for Simulating Musculoskeletal Strains on a Patient**
Group Art Unit : 3736
Examiner : Sean Patrick DOUGHERTY
Customer No. : 28289

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DECLARATION UNDER 37 C.F.R. § 1.132

I, Dr. Markus Heller, hereby declare as follows:

The present invention relates to the art of biomechanics: e.g. [0010], [0017], [0049], [0050] etc.

The art of Biomechanics is expressly focused on „The application of mechanical laws to living structures“ (Dorland’s Medical Dictionary, 29th edition, 2000). Furthermore, within the European Society of Biomechanics, Biomechanics is defined as “The study of forces acting on and generated within a body and of the effects of these forces on the tissues, fluids or materials used for diagnosis, treatment or research purposes” (www.esbiomech.org). This is an official body representing artisans in the field of Biomechanics and an authority in the field.

It follows that the obvious interpretation of the term “strain” for an artisan in the art of Biomechanics is therefore specific within the context of mechanics.

The obvious meaning of “strain” in a mechanical context is a proportional dimensional change or deformation and is measured as the total elongation per unit length of material due to some applied stress or loading (see e.g. “Theory of Elasticity” Timoshenko & Goodier 1951, “Biomechanics” Fung 1993, “Finite Element Methods” Zienkiewicz & Taylor 2002, Mosby’s Dental Dictionary, Wikipedia etc.). In this art, there is no broad interpretation of “strain”. For an artisan in the field of Biomechanics, this meaning specifically excludes any aspect of movement or “kinematics”, as used in U.S. Patent No. 6,205,411 DiGioia, III et al.

Therefore, it would be improper to attribute a broader meaning to the term “strain” within the context of this invention. In other words, the term “strain” in the claims, for example, cannot encompass the unspecific non-biomechanical aspects such as over exercising or filtering. Furthermore, the term “strain” describes a specific mechanical concept that is distinct from “kinematics”. For an artisan knowledgeable in the field these two terms cannot be used interchangeably.

The definition of the term „musculoskeletal“ was, in fact, broader rather than too limited, than would be obvious in the field of Biomechanics. In this aspect, the obvious definition of the word “pertaining to or comprising the skeleton and muscles, as musculoskeletal system” (Dorland’s Medical Dictionary) is not only correct, but also suitable to this invention.

The factual evidence provided hereby therefore demonstrates that the disclosure does indeed enable the claimed invention.



Dr. Markus Heller